

a3 24. (amended) Machine readable media encoded with data representing the structural coordinates of a crystal or ligand binding domain according to claim 1.

25. (amended) A method of screening for a ligand capable of binding a mannosidase II ligand binding domain, comprising the use of a crystal according to claim 1.

at 27. (amended) A ligand identified by a method according to claim 25.

29. (amended) A modulator of the activity of a mannosidase II derived from a crystal as claimed in claim 1.

32. (amended) A method for identifying a potential modulator of a mannosidase II function comprising the steps:

33 (a) docking a computer representation of a test compound from a computer data base with a computer representation of a crystal of a mannosidase II as claimed in claim 1, to obtain complexes;

(b) determining conformations of complexes with a favourable geometric fit and favourable complementary interactions; and

identifying a conformation of a compound that best fits the selected site as a potential modulators of the mannosidase II.

33. (amended) A method for identifying a potential modulator of a mannosidase II function comprising the steps:

(a) modifying a computer representation of a test compound complexed with a crystal of a ligand binding domain of a mannosidase II as described in claim 1, by deleting or adding a chemical group or groups;

(b) determining a conformation of the complex with a favourable geometric fit and favourable complementary interactions; and

identifying a compound that best fits the binding site as a potential modulator of a mannosidase

II.

34. (amended) A method for identifying a potential modulator of a mannosidase II function comprising the steps:

(a) selecting a computer representation of a test compound complexed with a crystal of a ligand binding domain of a mannosidase II as defined in claim 1; and

searching for molecules in a data base that are similar to the test compound using a searching computer program, or replacing portions of the test compound with similar chemical structures from a data base using a compound building computer program.

35. (amended) A modulator of a mannosidase II identified by a method according to claim 1.

36. (amended) A modulator of a mannosidase II based on the three-dimensional structure of an inhibitor's spatial association with a crystal as claimed in claim 1.

37. (amended) A method for designing potential inhibitors of a mannosidase II comprising the step of using the structural coordinates of a mannosidase II inhibitor defined in relation to its spatial association with a crystal of a mannosidase II or a ligand binding domain thereof according to claim 1, to generate a compound that is capable of associating with the mannosidase II or ligand binding domain thereof.

38. (amended) The use of a ligand according to claim 27, in the manufacture of a medicament to treat and/or prevent a disease in a mammalian patient.